



New Jersey Department of Environmental Protection
Site Remediation Program

REMEDIATION ACTION PERMIT APPLICATION – SOIL

Date Stamp
(For Department use only)

SECTION A. SITE NAME AND LOCATION

Site Name: Hess Corporation- Port Reading Refinery- AOC-3 the No. 1 Landfarm

List All AKAs:

Street Address: 750 Cliff Rd

Municipality: Woodbridge (Township, Borough, or City)

County: Middlesex

Zip Code: 07077

Program Interest (PI) Number(s): 006148

Case Tracking Number(s):

SECTION B. PERMIT APPLICATION, MODIFICATION, AND TERMINATION FEES

Select One

- ☒ Remedial Action Permit Application.....\$600.00
☐ Remedial Action Permit Modification\$400.00
☐ Remedial Action Permit Termination\$600.00

SECTION C. FEE BILLING CONTACT PERSON

Business Name: Hess Corporation

Phone: (732) 750-6934

Contact: John Engdahl

Title: Senior Specialist

Mailing Address: One Hess Plaza

City/Town: Woodbridge

State: NJ

Zip Code: 07095

Email Address: JEngdahl@Hess.com

SECTION D. PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION – CO-PERMITTEE

Affiliation/Name of Organization: Hess Corporation

First Name of Contact: John

Last Name of Contact: Engdahl

Title: Senior Specialist

Phone Number: (732) 750-6934

Ext:

Fax: (732) 750-6105

Mailing Address: One Hess Plaza

City/Town: Woodbridge

State: NJ

Zip Code: 07095

Email Address: JEngdahl@Hess.com

☒ Primary Responsibility for Permit Compliance

SECTION E. CURRENT OWNER OF THE SITE – CO-PERMITTEE

Affiliation/Name of Organization: Hess Corporation

First Name of Contact: John

Last Name of Contact: Engdahl

Title: Senior Specialist

Phone Number: (732) 750-6934

Ext:

Fax: (732) 750-6105

Mailing Address: One Hess Plaza

City/Town: Woodbridge

State: NJ

Zip Code: 07095

Email Address: JEngdahl@Hess.com

☐ Primary Responsibility for Permit Compliance

SECTION F. DEED NOTICE INFORMATION

1. Attach the following:

☒ Deed Notice (both in paper and electronically in Adobe PDF format)

OR

☐ Deed Notice Termination Document (both in paper and electronically in Adobe PDF format)

☐ Remedial Action Report (RAR) (electronically only - in Adobe PDF format)

2. Was a GIS compatible map of the Deed Notice sent to sprgis_dn@dep.state.nj.us? ☒ Yes ☐ No

3. Deed Notice filing date: Pending

7. Block(s) and Lot(s): 760.02 and 1

8. Is the entire AOC restricted? ☒ Yes ☐ No

If "No," what percent of the site is restricted? _____ %

9. Is this Deed Notice for Historic Fill material at the site? ☒ Yes ☐ No

If "Yes," is the Historic Fill material impacting the ground water at the site? ☒ Yes ☐ No

If "Yes," has the CEA/WRA Permit Fact Sheet Form been submitted to the NJDEP? ☒ Yes ☐ No

If "No," please attach a completed CEA/WRA Permit Fact Sheet Form to this application.

SECTION G. FINANCIAL ASSURANCE

1. Did the Deed Notice include an engineering control? ☒ Yes ☐ No

If "Yes," complete this section, otherwise proceed to the next section (Section I. Receptor Evaluation Summary).

2. Are any of the entities identified in Section D or E exempt from establishing financial assurance pursuant to N.J.A.C. 7:26C-7.10(c)? ☐ Yes ☒ No

Check the exemption that applies:

Person Responsible
for Conducting the
Remediation –
Co-Permittee

Current
Owner of
the Site –
Co-Permittee

- | | | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Government entity |
| <input type="checkbox"/> | <input type="checkbox"/> | A person not liable pursuant to the Spill Act that purchased contaminated property before May 7, 2009 |
| <input type="checkbox"/> | <input type="checkbox"/> | A person that conducted remediation at their primary or secondary residence |
| <input type="checkbox"/> | <input type="checkbox"/> | Owner or operator of a child care center |
| <input type="checkbox"/> | <input type="checkbox"/> | Public school or private school |
| <input type="checkbox"/> | <input type="checkbox"/> | Owner or operator of a small business responsible for conducting remediation at the location of the business |

3. Is the current owner of the site either a homeowner association or a condominium association pursuant to the New Jersey Common Interest Association Act, N.J.S.A. 46:8A-1 et seq.? ☐ Yes ☒ No

If "Yes," and the association is identified in Section D and E of this Permit Application, attach a copy of the association's annual budget that includes funds for the operation, maintenance, and monitoring of the engineering control(s) at the site.

4. Identify the estimated cost of operation, maintenance, and monitoring of the engineering control(s) at the site: \$ 828,064.97

5. Is the estimate attached? ☒ Yes ☐ No

6. What is the Financial Assurance Mechanism? (check all that apply)

- | | | |
|---|--|--|
| <input type="checkbox"/> Remediation Trust Fund | <input checked="" type="checkbox"/> Line of Credit | <input type="checkbox"/> Loan or Grant |
| <input type="checkbox"/> Environmental Insurance Policy | <input type="checkbox"/> Letter of Credit | |

7. Identify the full amount established as a financial assurance: \$ 828,064.97
8. Contact information at the financial institution for the financial assurance:
 Financial Institution: Pending
 First Name of Contact: _____ Last Name of Contact: _____
 Mailing Address: _____
 City/Town: _____ State: _____ Zip Code: _____
 Email Address: _____
 Phone Number: _____ Ext: _____ Fax: _____
9. Attach a copy of the original financial assurance instrument.

SECTION H. ENGINEERING CONTROL

1. Current Use for the Engineering Controlled Area (check all that apply)
- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Industrial | <input type="checkbox"/> Park or Recreational Use | <input type="checkbox"/> Child Care Center |
| <input type="checkbox"/> Residential | <input type="checkbox"/> Agricultural | <input type="checkbox"/> Hospital |
| <input type="checkbox"/> Commercial | <input type="checkbox"/> Road/Right of Way | <input type="checkbox"/> Vacant |
| <input type="checkbox"/> Government Facility | <input type="checkbox"/> School | <input type="checkbox"/> Other _____ |
2. If School or childcare was checked above, is a presumptive remedy being employed (see http://www.nj.gov/dep/srp/guidance/srra/presumptive_remedy_guidance_DRAFT.pdf)? ☐ Yes ☐ No
 If "No," when was the remedy approved by the NJDEP? _____
3. Date Engineering Control was installed: pending
4. Identify below the materials used for the engineering control.

Area	Engineering Control Description	Thickness	Units
AOC-3 The No. 1 Landfarm	Fence	5	Feet
AOC-3 The No. 1 Landfarm	Impermeable Cover	5	Feet

*Other, describe:

5. In the following table, please list all contaminants that require the use of a Deed Notice/engineering control (attach additional pages if needed).

[illegible]

SECTION I. RECEPTOR EVALUATION SUMMARY

1. Have any of the following been identified within 200 feet of the site boundary?

Check all that apply.

- ☐ Residences ☐ Public parks and playgrounds
- ☐ Potable wells ☒ Surface water
- ☐ Public and private schools (K-12) ☐ Tier 1 Well-head protection areas
- ☐ Child care facilities ☐ Ecological receptor (e.g., wetlands, pinelands)

2. Have any of these receptors been impacted? ☐ Yes ☒ No

If "Yes," date of Receptor Control: _____ Date of IEC Contaminant Source Control: _____

3. Have any vapor mitigation systems been installed as a result of this soil contamination? ☐ Yes ☒ No

If "Yes," identify the building(s) and/or structure(s) and vapor mitigation system(s) that is in place (e.g., active or passive). Please attach the Operation, Maintenance, and Monitoring (OMM) Plan for the vapor mitigation system(s) both in paper and electronically (in "MS Word" file format).

SECTION J. OTHER REMEDIATION PERMITS

Are other Remediation Permits also being applied for or already obtained? ☒ Yes ☐ No

If "Yes," please list the Permit Type, Permit Number and Effective Date for other remediation permits.

NJPDES Permit # NJ0028878

Remedial Action Permit- Groundwater- Pending

SECTION K. PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION INFORMATION AND CERTIFICATION

Full Legal Name of the Person Responsible for Conducting the Remediation: Hess Corporation

Representative First Name: John

Representative Last Name: Engdahl

Title: Senior Specialist

Phone Number: (732) 750-6934

Ext: _____

Fax: (732) 750-6105

Mailing Address: One Hess Plaza

City/Town: Woodbridge

State: NJ

Zip Code: 07095

Email Address: JEngdahl@Hess.com

This certification shall be signed by the person responsible for conducting the remediation who is submitting this notification in accordance with Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.

Signature: _____

Date: _____

Name/Title: John Engdahl/ Senior Specialist

No Changes Since Last Submittal ☐

SECTION L. CURRENT OWNER OF THE SITE - CO-PERMITTEE

Full Legal Name of the Person who owns the site: Hess Corporation

Representative First Name: John

Representative Last Name: Engdahl

Title: Senior Specialist

Phone Number: (732) 750-6934

Ext: _____

Fax: (732) 750-6105

Mailing Address: One Hess Plaza

City/Town: Woodbridge

State: NJ

Zip Code: 07095

Email Address: JEngdahl@Hess.com

This certification shall be signed by the person who owns the site and is submitting this notification in accordance with Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.

Signature: _____

Date: _____

Name/Title: John Engdahl/ Senior Specialist

No Changes Since Last Submittal ☐

SECTION M. LICENSED SITE REMEDIATION PROFESSIONAL INFORMATION AND STATEMENT

LSRP ID Number: 581780

First Name: David

Last Name: Carlson

Phone Number: (609) 387-5553

Ext:

Fax: (609) 387-5533

Mailing Address: 3 Terri Ln, Suite #8

City/Town: Burlington

State: NJ

Zip Code: 08016

Email Address: davec@envirotrac.com

I certify that I am a Licensed Site Remediation Professional authorized pursuant to N.J.S.A. 58:10C to conduct business in New Jersey. As the Licensed Site Remediation Professional of record for this remediation, I:

[SELECT ONE OR BOTH OF THE FOLLOWING AS APPLICABLE]:☐ *directly oversaw and supervised all of the referenced remediation, and/or*☒ *personally reviewed and accepted all of the referenced remediation presented herein.*

I believe that the information contained herein, and including all attached documents, is true, accurate and complete.

It is my independent professional judgment and opinion that the remediation conducted at this site, as reflected in this submission to the Department, conforms to, and is consistent with, the remediation requirements in N.J.S.A. 58:10C-14.

My conduct and decisions in this matter were made upon the exercise of reasonable care and diligence, and by applying the knowledge and skill ordinarily exercised by licensed site remediation professionals practicing in good standing, in accordance with N.J.S.A. 58:10C-16, in the State of New Jersey at the time I performed these professional services.

I am aware pursuant to N.J.S.A. 58:10C-17 that for purposely, knowingly or recklessly submitting false statement, representation or certification in any document or information submitted to the board or Department, etc., that there are significant civil, administrative and criminal penalties, including license revocation or suspension, fines and being punished by imprisonment for conviction of a crime of the third degree.

LSRP Signature:

Date:

LSRP Name/Title: David J. Carlson/ Senior Project Manager

No Changes Since Last Submittal ☒

Company Name: EnviroTrac Ltd.

Completed forms should be sent to:

Bureau of Case Assignment & Initial Notice
Site Remediation Program
NJ Department of Environmental Protection
401-05H
PO Box 420
Trenton, NJ 08625-0420

Financial Assurance

USEPA CostPro Estimate

DRAFT

**Hess Corporation- Port Reading Refinery- AOC- 3 the No. 1
Landfarm
P001**

Address: 750 Cliff Road
Port Reading
NEW JERSEY
07077

Contact: David Carlson or Sarah Dyson
609-387-5553

Comments: Includes Cost of 30-year Monthly Monitoring and Inspection of Cap and Fence including \$500 per year for any necessary repairs, \$5,327.04 included for final closure expense. Includes Semi-Annual Groundwater Monitoring and Sampling.

Activity	Units	Closure Cost
Post Closure Care	1	\$828,064.97

\$828,064.97

Additional Costs \$0.00

Total Estimated Cost \$828,064.97

Facility: Hess Corporation- Port
Reading Refinery- AOC- 3
the No. 1 Landfarm

Unit: Unit1

04/26/2013

Post-Closure Care Summary (PC_01-1)

Removal of Leachate (PC-02)	\$0.00	
Site Security (PC-03)	\$0.00	
Maintenance of Vegetative Cover (PC-04)	\$0.00	
Maintenance and Inspection (PC-05)	\$81,694.40	
Groundwater Monitoring(PC-06)	\$630,171.60	
Deed Notation (PC-07)	\$0.00	
Maintenance and Inspection of Asphalt Cover (PC-8)	\$0.00	
Surface Emission Monitoring (PC-09)	\$0.00	
Gas Extraction System and Perimeter Probe Monitoring (PC-10)	\$0.00	
User Defined Cost (UD-01)	\$0.00	
Subtotal of Post-Closure Costs	\$711,866.00	
Percentage of Engineering Expenses	5.0	%
Engineering Expenses	\$35,593.30	
Certification of Post-Closure (PC-11)	\$5,327.04	
Subtotal	\$752,786.34	
Percentage of Contingency Allowance	10.0	%
Contingency Allowance	\$75,278.63	
TOTAL COST OF POST-CLOSURE CARE	\$828,064.97	

Facility: Hess Corporation- Port
Reading Refinery- AOC- 3
the No. 1 Landfarm

Unit: Unit1

04/26/2013

Post-Closure Care Rep. and Insp. of Veg. Cover (PC_05-1)

MAINTENANCE AND REPAIR OF FINAL COVER

Cost of installing undifferentiated fill	\$0.00	
Cost of installing clay layer	\$0.00	
Cost of installing geomembrane	\$0.00	
Cost of installing drainage layer	\$500.00	
Cost of installing earthen layer	\$0.00	
Cost of installing topsoil	\$0.00	
Cost of installing colloid clay layer	\$0.00	
Total cost of installing final cover	\$500.00	
Maintenance and repair factor	100.0	%
Cost to Maintain and Repair Final Cover	\$500.00	

POST-CLOSURE CARE INSPECTION

Cost of conducting one inspection	\$225.54	per Inspection
Number of inspections per year	12	Inspections per Year
Cost of conducting post-closure care inspections per year	\$2,706.48	per Year
Number of years in post-closure care period	30	Years
Cost to Conduct Inspections Over the Post-Closure Care Period	\$81,194.40	
TOTAL COST OF REPAIR AND INSPECTION	\$81,694.40	

Notes: Includes cost of 30-year Monthly Inspection Monitoring with 500 annual for repairs or other maintenance and 5327.06 allowed for Final Closure Costs.

Facility: Hess Corporation- Port
Reading Refinery- AOC- 3
the No. 1 Landfarm

Unit: Unit1

04/26/2013

Post-Closure Care Groundwater Monit. (PC_06-1)

COLLECTION OF GROUNDWATER SAMPLES

Number of sampling locations	8	Sample Location
Choose the appropriate level of PPE	Protection Level D	
Labor and equipment cost per work hour	\$158.06	per Work Hour
Work rate to collect samples from one sampling location	2.5000	Work hr per Location
Number of hours required to collect all samples	20.0	Work hrs
Cost to Collect Groundwater Samples per Event	\$3,161.20	per Event

ANALYSIS OF GROUNDWATER SAMPLES

Cost to Analyze Groundwater Samples per Event	\$7,341.66	per Event
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TOTAL GROUNDWATER MONITORING FOR POST-CLOSURE CARE PERIOD

Cost of Sampling and Analysis of Groundwater for Post-Closure	\$10,502.86	per Event
Number of sampling events per year	2	Events per yr
Number of years of groundwater monitoring during the post-closure care period	30	Years
TOTAL COST OF GROUNDWATER MONITORING	\$630,171.60	

Notes: Nitrogen Analysis is substituted for Ammonia.

Facility: Hess Corporation- Port
Reading Refinery- AOC- 3
the No. 1 Landfarm

Unit: Unit1

04/26/2013

Certification of Completion of Post-Closure Care (PC_11-1)

Number of units requiring certification of completion of post-closure care	1	Units
Cost of certification of completion of post-closure care per unit	\$5,327.04	per Unit
TOTAL COST OF CERTIFICATION OF POST-CLOSURE CARE	\$5,327.04	

Deed Notice

DRAFT

IN ACCORDANCE WITH N.J.S.A. 58:10B-13, THIS DOCUMENT IS TO BE RECORDED IN THE SAME MANNER AS ARE DEEDS AND OTHER INTERESTS IN REAL PROPERTY.

Prepared by: _____
[Signature]

David J. Carlson on behalf of Hess Corporation- Port Reading

Recorded by: _____
[Signature, Officer of County Recording Office]

[Print name below signature]

DEED NOTICE

This Deed Notice is made as of the ____ day of ____, ____, by Hess Corporation of One Hess Plaza, Woodbridge, Middlesex County, New Jersey (together with his/her/its/their successors and assigns, collectively "Owner").

1. **THE PROPERTY.** Hess Corporation of One Hess Plaza, Woodbridge, Middlesex County, New Jersey is the owner in fee simple of certain real property designated as Block(s) 760.02 Lot 1, on the tax map of the Township of Woodbridge, Middlesex County; the New Jersey Department of Environmental Protection Program Interest Number (Preferred ID) for the contaminated site which includes this property is # 006148 and the property is more particularly described in Exhibit A, which is attached hereto and made a part hereof (the "Property").

2. **REMEDIATION and DEPARTMENTAL OVERSIGHT.**

i. **DEPARTMENT'S ASSIGNED BUREAU.** The Bureau of Case Management is the New Jersey Department of Environmental Protection program that was responsible for the oversight of the remediation of the Property. The area is commonly known as Area of Concern (AOC) 1- the North Landfarm

ii. N.J.A.C. 7:26C-7 requires the Owner, among other persons, to obtain a soil remedial action permit for the soil remedial action at the Property. That permit will contain the monitoring, maintenance and biennial certification requirements that apply to the Property.

3. **SOIL CONTAMINATION.** Hess Corporation has remediated contaminated soil at the Property, such that soil contamination remains in certain areas of the Property that contains contaminants in concentrations that do not allow for the unrestricted use of the Property; this soil

contamination is described, including the type, concentration and specific location of such contaminants, in Exhibit B, which is attached hereto and made a part hereof. As a result, there is a statutory requirement for this Deed Notice and engineering controls in accordance with N.J.S.A. 58:10B-13.

4. CONSIDERATION. In accordance with the remedial action for the site which included the Property, and in consideration of the terms and conditions of that remedial action, and other good and valuable consideration, Owner has agreed to subject the Property to certain statutory and regulatory requirements that impose restrictions upon the use of the Property, to restrict certain uses of the Property, and to provide notice to subsequent owners, lessees and operators of the restrictions and the monitoring, maintenance, and biennial certification requirements outlined in this Deed Notice and required by law, as set forth herein.

5A. RESTRICTED AREAS. Due to the presence of contamination remaining at concentrations that do not allow for unrestricted use, the Owner has agreed, as part of the remedial action for the Property, to restrict the use of certain parts of the Property (the "Restricted Areas"); a narrative description of these restrictions is provided in Exhibit C, which is attached hereto and made a part hereof. The Owner has also agreed to maintain a list of these restrictions on site for inspection by governmental officials.

5B. RESTRICTED LAND USES. The following statutory land use restrictions apply to the Restricted Areas:

i. The Brownfield and Contaminated Site Remediation Act, N.J.S.A. 58:10B-12.g(10), prohibits the conversion of a contaminated site, remediated to non-residential soil remediation standards that require the maintenance of engineering or institutional controls, to a child care facility, or public, private, or charter school without the Department's prior written approval, unless a presumptive remedy is implemented; and

ii. The Brownfield and Contaminated Site Remediation Act, N.J.S.A. 58:10B-12.g(12), prohibits the conversion of a landfill, with gas venting systems and or leachate collection systems, to a single family residence or a child care facility without the Department's prior written approval.

5C. ENGINEERING CONTROLS. Due to the presence and concentration of these contaminants, the Owner has also agreed, as part of the remedial action for the Property, to the placement of certain engineering controls on the Property; a narrative description of these engineering controls is provided in Exhibit C.

6A. CHANGE IN OWNERSHIP AND REZONING.

i. The Owner and the subsequent owners and lessees, shall cause all leases, grants, and other written transfers of an interest in the Restricted Areas to contain a provision expressly requiring all holders thereof to take the Property subject to the restrictions contained herein and to comply with all, and not to violate any of the conditions of this Deed Notice. Nothing

contained in this Paragraph shall be construed as limiting any obligation of any person to provide any notice required by any law, regulation, or order of any governmental authority.

ii. The Owner and the subsequent owners shall provide written notice to the Department of Environmental Protection on a form provided by the Department and available at www.nj.gov/srp/forms within thirty (30) calendar days after the effective date of any conveyance, grant, gift, or other transfer, in whole or in part, of the owner's interest in the Restricted Area.

iii. The Owner and the subsequent owners shall provide written notice to the Department, on a form available from the Department at www.nj.gov/srp/forms, within thirty (30) calendar days after the owner's petition for or filing of any document initiating a rezoning of the Property to residential.

6B. SUCCESSORS AND ASSIGNS. This Deed Notice shall be binding upon Owner and upon Owner's successors and assigns, and subsequent owners, lessees and operators while each is an owner, lessee, or operator of the Property.

7A. ALTERATIONS, IMPROVEMENTS, AND DISTURBANCES.

i. The Owner and all subsequent owners and lessees shall notify any person, including, without limitation, tenants, employees of tenants, and contractors, intending to conduct invasive work or excavate within the Restricted Areas, of the nature and location of contamination in the Restricted Areas, and, of the precautions necessary to minimize potential human exposure to contaminants.

ii. Except as provided in Paragraph 7B, below, no person shall make, or allow to be made, any alteration, improvement, or disturbance in, to, or about the Property which disturbs any engineering control at the Property without first obtaining a soil remedial action permit modification pursuant to N.J.A.C. 7:26C-7. Nothing herein shall constitute a waiver of the obligation of any person to comply with all applicable laws and regulations including, without limitation, the applicable rules of the Occupational Safety and Health Administration.

iii. Notwithstanding subparagraph 7Aii., above, a soil remedial action permit modification is not required for any alteration, improvement, or disturbance provided that the owner, lessee or operator:

(A) Notifies the Department of Environmental Protection of the activity by calling the DEP Hotline, at 1-877-WARN-DEP or 1-877-927-6337, within twenty-four (24) hours after the beginning of each alteration, improvement, or disturbance;

(B) Restores any disturbance of an engineering control to pre-disturbance conditions within sixty (60) calendar days after the initiation of the alteration, improvement or disturbance;

(C) Ensures that all applicable worker health and safety laws and regulations are followed during the alteration, improvement, or disturbance, and during the restoration;

(D) Ensures that human exposure to contamination in excess of the remediation standards does not occur; and

(E) Describes, in the next biennial certification the nature of the alteration, improvement, or disturbance, the dates and duration of the alteration, improvement, or disturbance, the name of key individuals and their affiliations conducting the alteration, improvement, or disturbance, a description of the notice the Owner gave to those persons prior to the disturbance.

7B. EMERGENCIES. In the event of an emergency which presents, or may present, an unacceptable risk to the public health and safety, or to the environment, or immediate environmental concern, see N.J.S.A. 58:10C-2, any person may temporarily breach an engineering control provided that that person complies with each of the following:

i. Immediately notifies the Department of Environmental Protection of the emergency, by calling the DEP Hotline at 1-877-WARNDEP or 1-877-927-6337;

ii. Hires a Licensed Site Remediation Professional (unless the Restricted Areas includes an unregulated heating oil tank) to respond to the emergency;

iii. Limits both the actual disturbance and the time needed for the disturbance to the minimum reasonably necessary to adequately respond to the emergency;

iv. Implements all measures necessary to limit actual or potential, present or future risk of exposure to humans or the environment to the contamination;

v. Notifies the Department of Environmental Protection when the emergency or immediate environmental concern has ended by calling the DEP Hotline at 1-877-WARNDEP or 1-877-927-6337; and

vi. Restores the engineering control to the pre-emergency conditions as soon as possible, and provides notification to the Department of Environmental Protection within sixty (60) calendar days after completion of the restoration of the engineering control, including: (a) the nature and likely cause of the emergency; (b) the potential discharges of or exposures to contaminants, if any, that may have occurred; (c) the measures that have been taken to mitigate the effects of the emergency on human health and the environment; (d) the measures completed or implemented to restore the engineering control; and (e) the changes to the engineering control or site operation and maintenance plan to prevent reoccurrence of such conditions in the future.

8. TERMINATION OF DEED NOTICE.

i. This Deed Notice may be terminated only upon filing of a Termination of Deed Notice, available at N.J.A.C. 7:26C Appendix C, with the office of the Registry Office of Middlesex County, New Jersey, expressly terminating this Deed Notice.

ii. Within thirty (30) calendar days after the filing of a Termination of Deed Notice, the owner of the property shall apply to the Department for termination of the soil remedial action permit pursuant to N.J.A.C. 7:26C-7.

9. ACCESS. The Owner, and the subsequent owners, lessees and operators agree to allow the Department, its agents and representatives access to the Property to inspect and evaluate the continued protectiveness of the remedial action that includes this Deed Notice and to conduct additional remediation to ensure the protection of the public health and safety and of the environment if the subsequent owners, lessees and operators, during their ownership, tenancy, or operation, and the Owner fail to conduct such remediation pursuant to this Deed Notice as required by law. The Owner, and the subsequent owners and lessees, shall also cause all leases, subleases, grants, and other written transfers of an interest in the Restricted Areas to contain a provision expressly requiring that all holders thereof provide such access to the Department.

10. ENFORCEMENT OF VIOLATIONS.

i. This Deed Notice itself is not intended to create any interest in real estate in favor of the Department of Environmental Protection, nor to create a lien against the Property, but merely is intended to provide notice of certain conditions and restrictions on the Property and to reflect the regulatory and statutory obligations imposed as a conditional remedial action for this site.

ii. The restrictions provided herein may be enforceable solely by the Department against any person who violates this Deed Notice. To enforce violations of this Deed Notice, the Department may initiate one or more enforcement actions pursuant to N.J.S.A. 58:10-23.11, and N.J.S.A. 58:10C, and require additional remediation and assess damages pursuant to N.J.S.A. 58:10-23.11, and N.J.S.A. 58:10C.

11. SEVERABILITY. If any court of competent jurisdiction determines that any provision of this Deed Notice requires modification, such provision shall be deemed to have been modified automatically to conform to such requirements. If a court of competent jurisdiction determines that any provision of this Deed Notice is invalid or unenforceable and the provision is of such a nature that it cannot be modified, the provision shall be deemed deleted from this instrument as though the provision had never been included herein. In either case, the remaining provisions of this Deed Notice shall remain in full force and effect.

12A. EXHIBIT A. Exhibit A includes the following maps of the Property and the vicinity:

i. Exhibit A-1: Vicinity Map - A map that identifies by name the roads, and other important geographical features in the vicinity of the Property (for example, USGS Quad map, Hagstrom County Maps);

iii. Exhibit A-3: Property Map - A scaled map of the Property, scaled at one inch to 200 feet or less, and if more than one map is submitted, the maps shall be presented as overlays, keyed to a base map; and the Property Map shall include diagrams of major surface topographical features such as buildings, roads, and parking lots.

12B. EXHIBIT B. Exhibit B includes the following descriptions of the Restricted Areas:

i. Exhibit B-1: Restricted Area Map - A separate map for each restricted area that includes:

(A) As-built diagrams of each engineering control, including caps, fences, slurry walls, (and, if any) ground water monitoring wells, extent of the ground water classification exception area, pumping and treatment systems that may be required as part of a ground water engineering control in addition to the deed notice

(B) As-built diagrams of any buildings, roads, parking lots and other structures that function as engineering controls; and

(C) Designation of all soil and sediment sample locations within the restricted areas that exceed any soil or sediment standard that are keyed into one of the tables described in the following paragraph.

ii. Exhibit B-2: Restricted Area Data Table - A separate table for each restricted area that includes either (A) or (B) through (F):

(A) Only for historic fill extending over the entire site or a portion of the site and for which analytical data are limited or do not exist, a narrative that states that historic fill is present at the site, a description of the fill material (e.g., ash, cinders, brick, dredge material), and a statement that such material may include, but is not limited to, contaminants such as PAHs and metals;

(B) Sample location designation from Restricted Area map (Exhibit B-1);

(C) Sample elevation based upon mean sea level;

(D) Name and chemical abstract service registry number of each contaminant with a concentration that exceeds the unrestricted use standard;

(E) The restricted and unrestricted use standards for each contaminant in the table; and

(F) The remaining concentration of each contaminant at each sample location at each elevation.

12C. EXHIBIT C. Exhibit C includes narrative descriptions of the institutional controls and engineering controls as follows:

i. Exhibit C-1: Deed Notice as Institutional Control: Exhibit C-1 includes a narrative description of the restriction and obligations of this Deed Notice that are in addition to those described above, as follows:

(A) Description and estimated size of the Restricted Areas as described above;

(B) Description of the restrictions on the Property by operation of this Deed Notice;
and

(C) The objective of the restrictions.

ii. Exhibit C-2: Fence: Exhibit C-2 includes a narrative description of the Fence as follows:

(A) Description of the engineering control;

(B) The objective of the engineering control; and

(C) How the engineering control is intended to function.

13. SIGNATURES. IN WITNESS WHEREOF, Owner has executed this Deed Notice as of the date first written above.

ATTEST: Hess Corporation

By _____

John Engdahl

[Signature]

STATE OF NEW JERSEY
COUNTY OF MIDDLESEX

SS.:

I certify that on _____, 20__, John Engdahl personally came before me, and this person acknowledged under oath, to my satisfaction, that:

(a) this person is the designated signee of Hess Corporation the corporation named in this document;

(b) this person is the attesting witness to the signing of this document by the proper corporate officer who is the vice president of the corporation;

(c) this document was signed and delivered by the corporation as its voluntary act and was duly authorized;

(d) this person knows the proper seal of the corporation which was affixed to this document; and

(e) this person signed this proof to attest to the truth of these facts.

[Signature]

[Print name and title of attesting witness]

Signed and sworn before me on _____, 20__

_____, Notary Public

[Print name and title]

EXHIBIT A

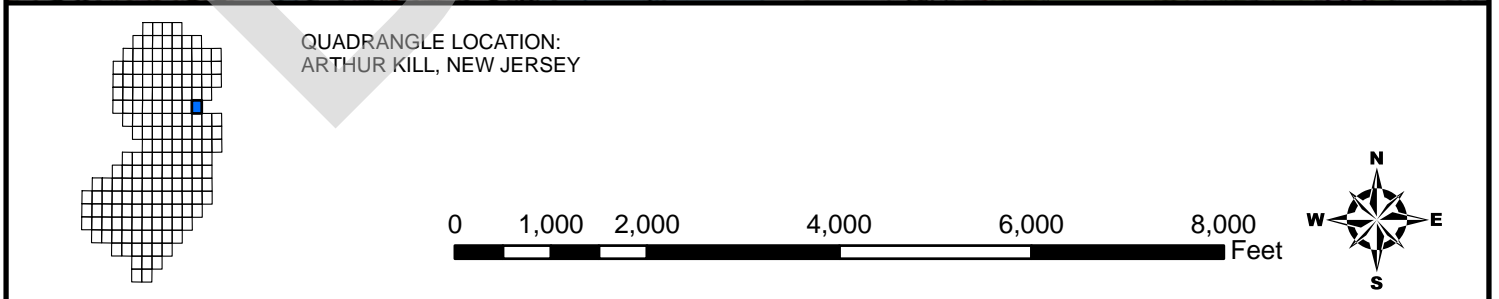
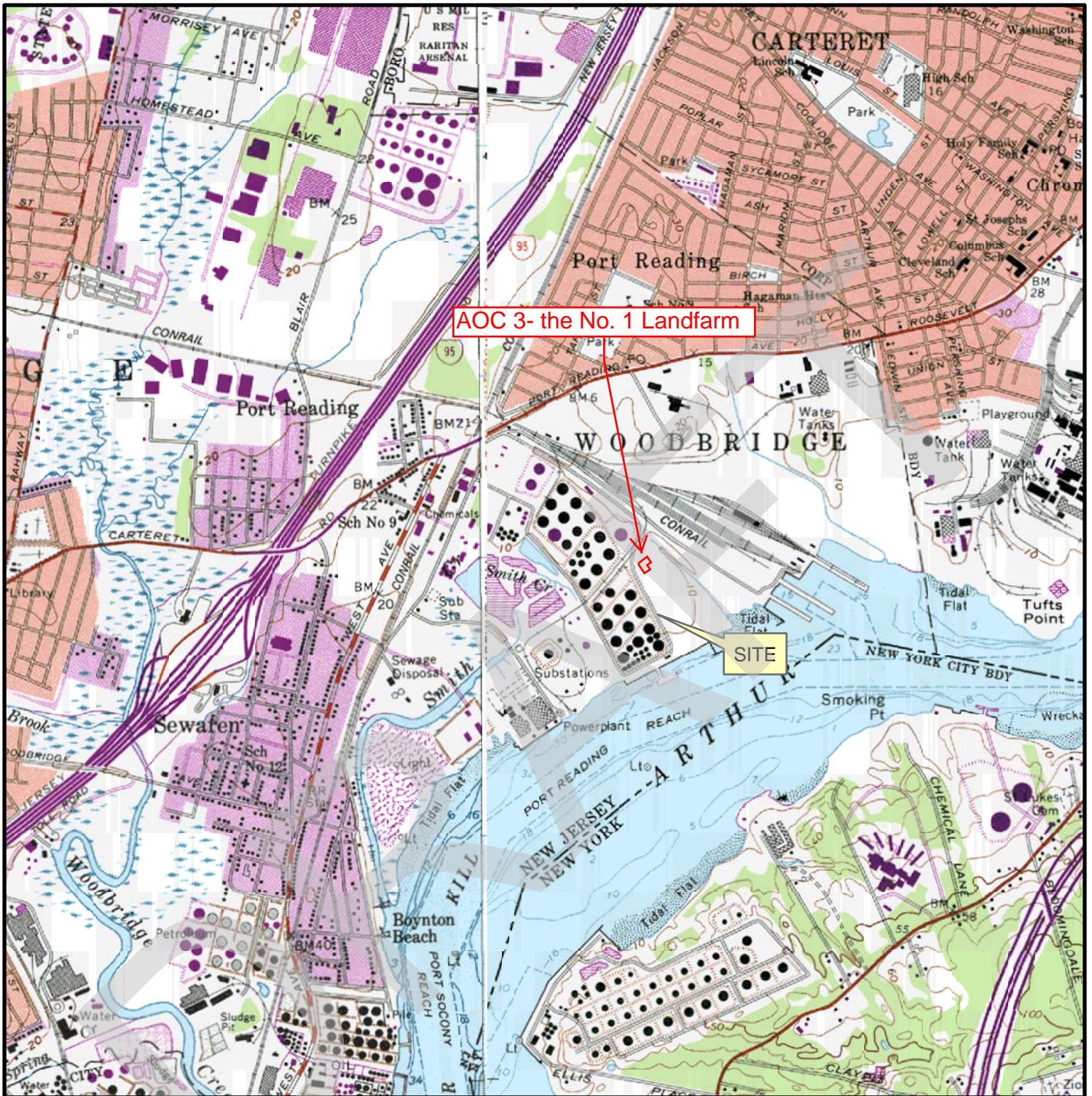
Exhibit A-1: Vicinity Map

Exhibit A-2: Tax Map and Metes and Bounds Description

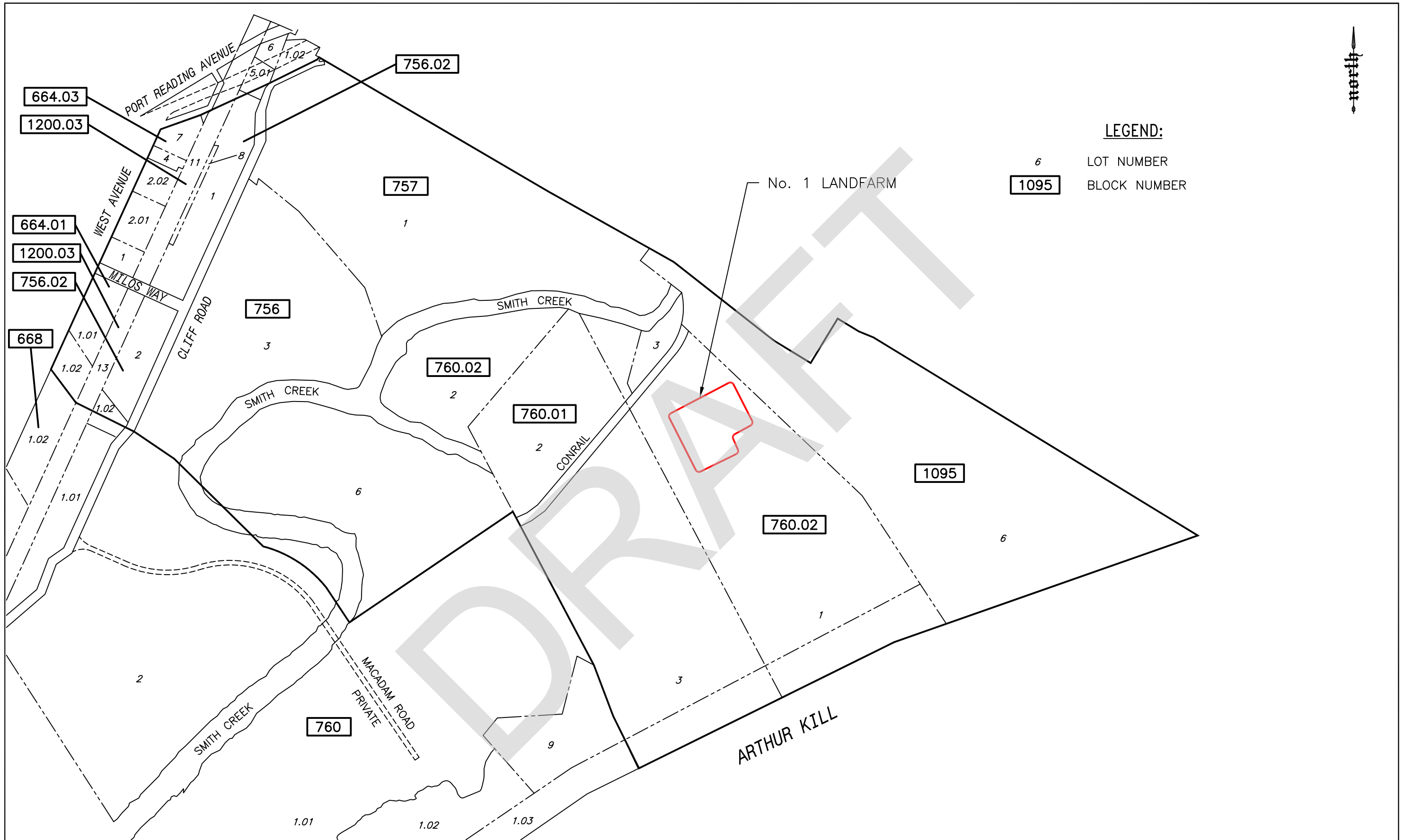
Exhibit A-3(a): Property Map

Exhibit A-3(b): Detailed Property Map

DRAFT



<p>Exhibit A-1</p>	<p>Vicinity Map- AOC -3 the No.1 Landfarm</p> <p>HESS CORPORATION 750 CLIFF ROAD PORT READING, NEW JERSEY</p>	<p>DRAWN BY: B.J.S.</p> <p>DATE: 7/15/10</p>	<p>EnviroTrac ENVIRONMENTAL SERVICES 400E CORPORATE COURT, So. PLAINFIELD NJ 07080 PHONE: (908)757-1900 FAX: (908)757-0017</p>
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LEGEND:

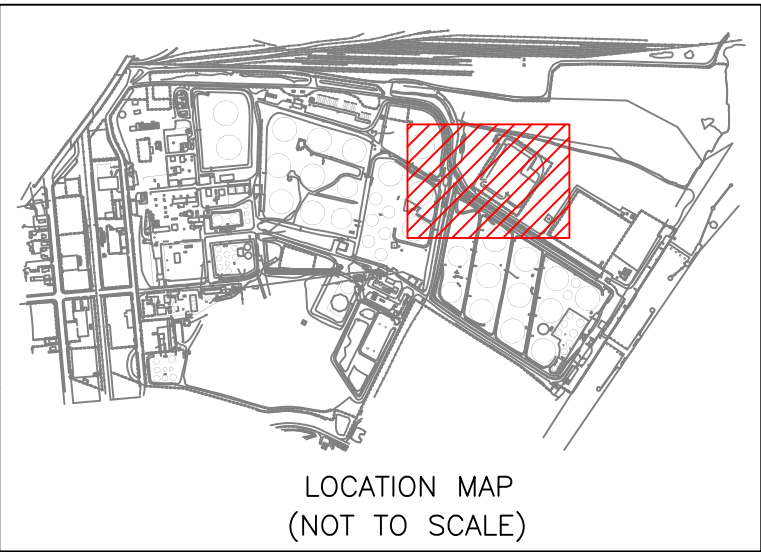
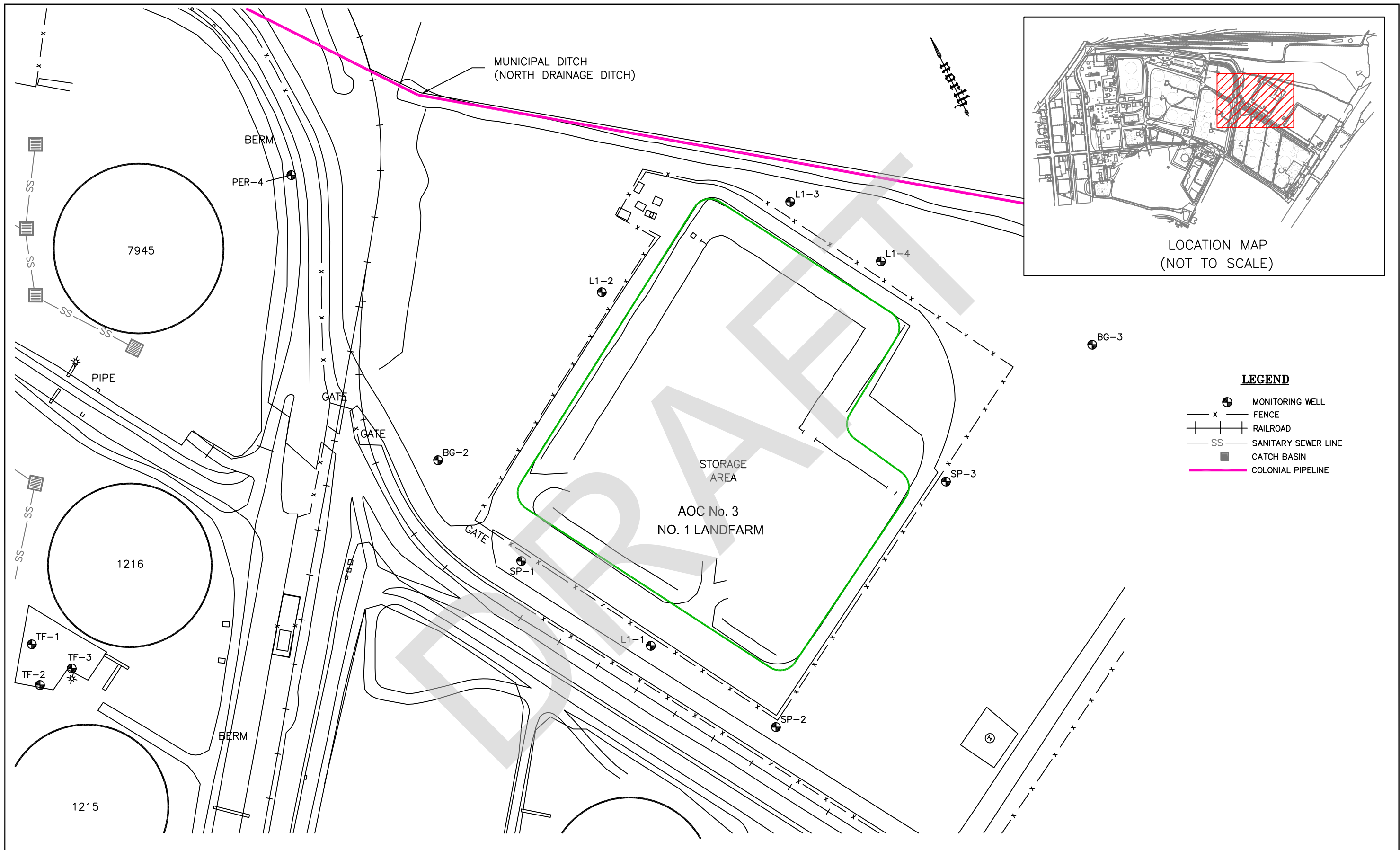
6 LOT NUMBER
1095 BLOCK NUMBER

Exhibit A-2: Metes and Bounds

ALL that certain tract, lot and parcel of land lying and being in the unincorporated Community of Port Reading, Township of Woodbridge, County of Middlesex and State of New Jersey, being more particularly described as follows:

The land referred to in this Commitment is commonly known as Lot 1, Block 760.02 on the Tax Map, City of Union City, in the County of Hudson.

More particularly the parcel of land starting at 40 degrees 33 feet 42 minutes 58 seconds North; 74 degrees 14 feet 29 minutes 20 seconds inches West and continuing 320 feet East-Northeast to 40 degrees 33 feet 44 minutes 06 seconds North; 74 degrees 14 feet 25 minutes 56 seconds West, and continuing 175 feet South-Southeast to 40 degrees 33 feet 42 minutes 53 seconds North; 74 degrees 14 feet 24 minutes 65 seconds inches West, and continuing 120 feet West-Southwest to 40 degrees 33 feet 41 minutes 96 seconds inches North; 74 degrees 14 feet 25 minutes 30 seconds inches West, and continuing 125 feet South-Southeast to 40 degrees 33 feet 40 minutes 90 seconds inches North; 74 degrees 14 feet 25 minutes 18 seconds inches West, and continuing 200 feet West-Southwest to 40 degrees 33 feet 40 minutes 04 seconds inches North; 74 degrees 14 feet 27 minutes 46 seconds inches West and continuing 300 feet North-Northwest to the place whence begun.



- LEGEND**
- MONITORING WELL
 - x FENCE
 - + RAILROAD
 - SS SANITARY SEWER LINE
 - CATCH BASIN
 - COLONIAL PIPELINE

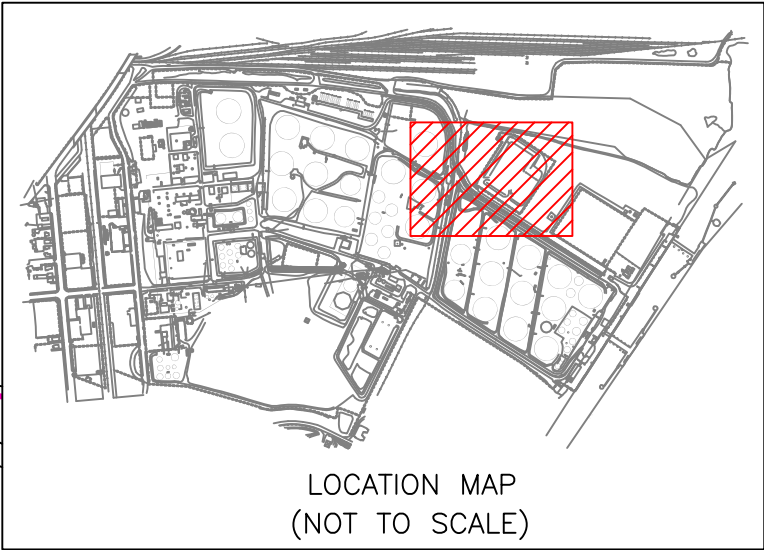
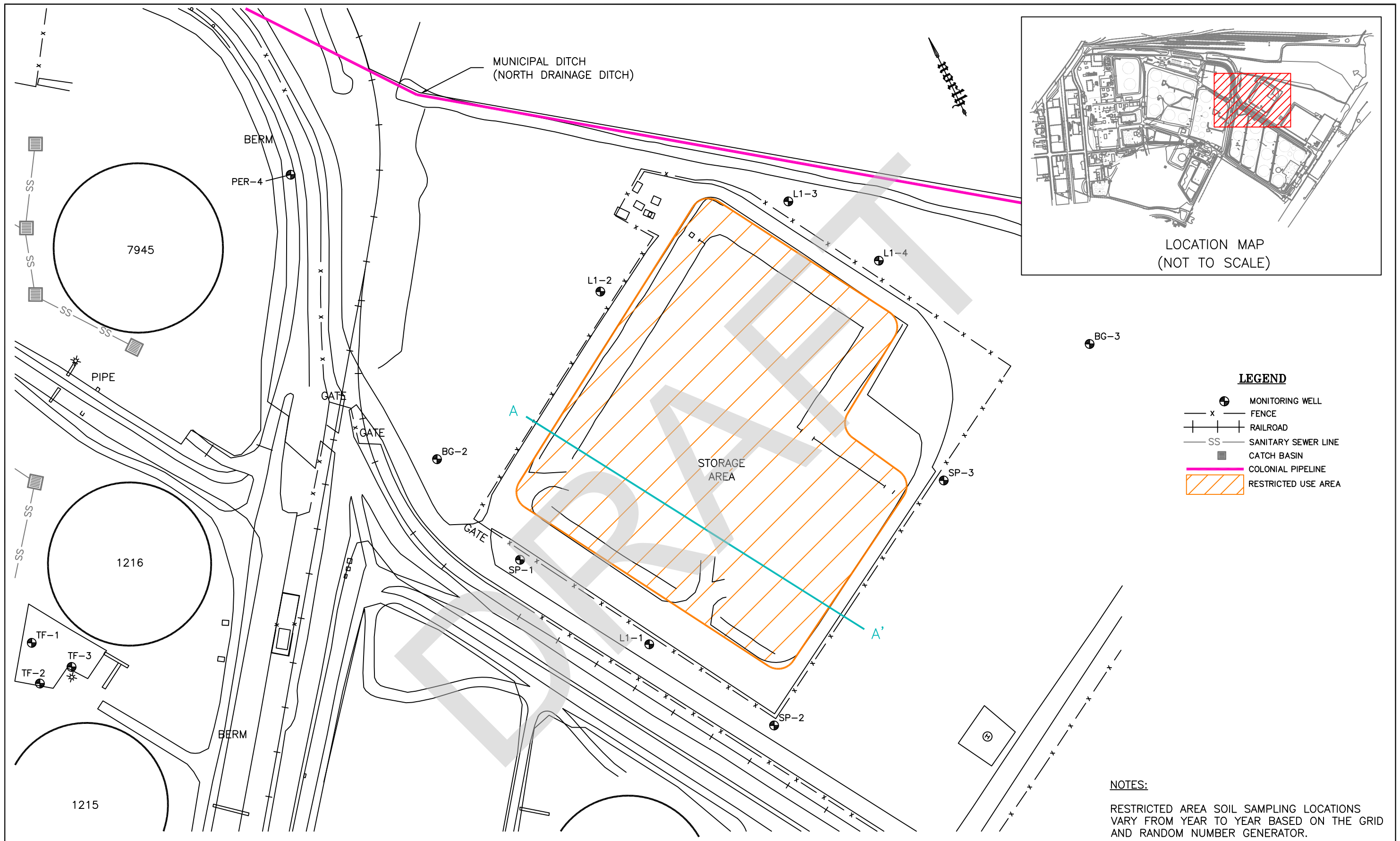
EXHIBIT B

Exhibit B-1(a): Restricted Use Area Map

Exhibit B-1(b): Restricted Use Engineering Control

Exhibit B-2: Restricted Area Data Table

DRAFT



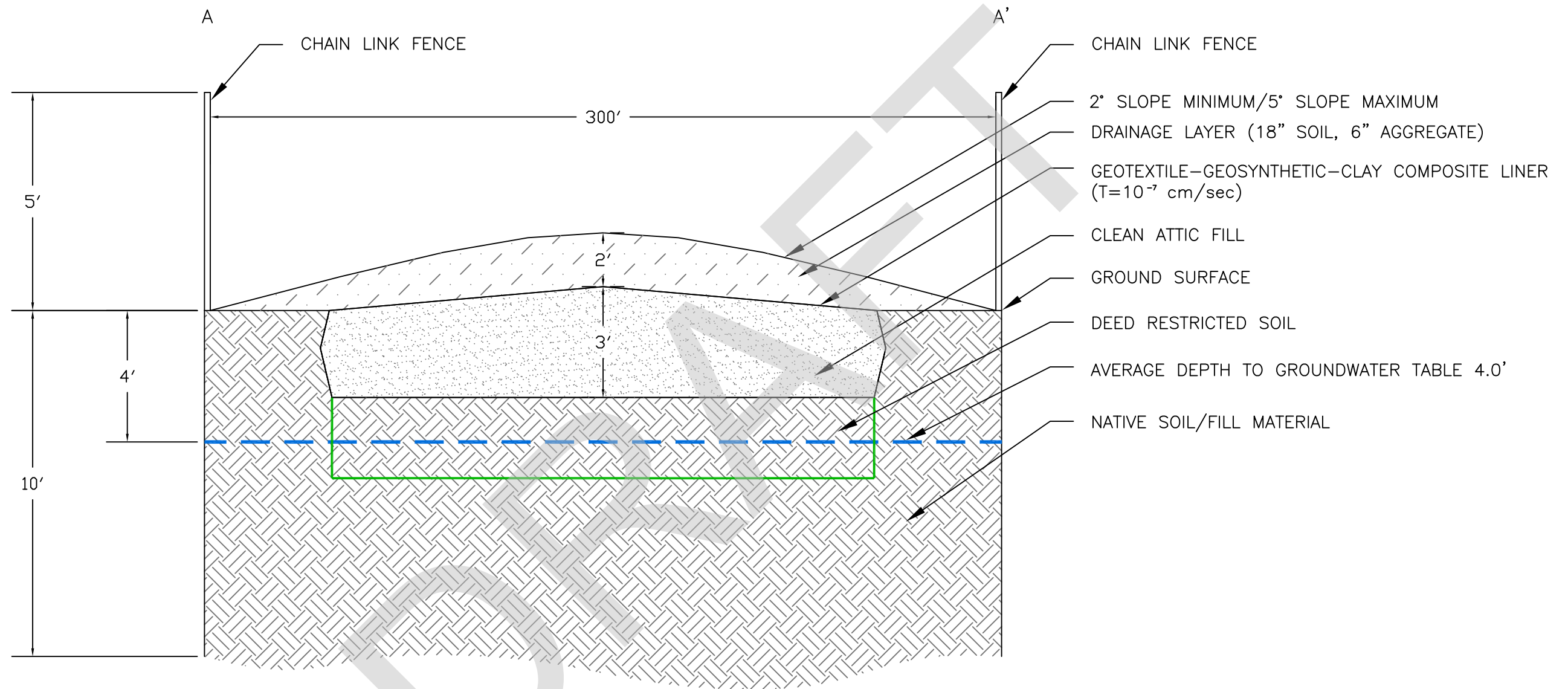


EXHIBIT
B-1(b)

HESS CORPORATION
750 CLIFF ROAD
PORT READING, NEW JERSEY



RESTRICTED USE MAP ENGINEERING CONTROL
AOC-3 - No. 1 LANDFARM

DRAWN BY: J.M.

REVISION DATE: 4/26/13

DRAWING IS
NOT TO SCALE

EnviroTrac
ENVIRONMENTAL SERVICES
3 TERRI LANE, SUITE #8, BURLINGTON, NJ 08016
PHONE: (609)387-5553 FAX: (609)387-5533

Exhibit B-2- Restricted Area Data Table
No. 1 Landfarm Soil Core Monitoring Summary
Hess Port Reading Refinery
750 Cliff Road
Port Reading, Middlesex County, New Jersey

			Volatile Organic										Metals											
Sample Location	Sample Date	Approximate Elevation Above Mean Sea Level (feet)	Benzene (CAS # 9072-35-9)	2-Butanone (MEK) (CAS # 78-93-3)	Carbon disulfide (CAS # 75-15-0)	Chlorobenzene (CAS # 108-90-7)	1,2- Dichlorobenzene (CAS # 95-50-1)	Ethylbenzene (CAS # 100-41-4)	MTBE (CAS # 1634-04-4)	TBA (CAS # 75-64-0)	Toluene (CAS # 108-88-3)	Xylene (total) (CAS # 1330-20-7)	Antimony (CAS # 7440-36-0)	Arsenic (CAS # 7440-38-2)	Barium (CAS # 7440-39-3)	Beryllium (CAS # 7440-41-7)	Cadmium (CAS # 7440-43-9)	Chromium (CAS # 7440-47-3)	Cobalt (CAS # 7440-48-4)	Lead (CAS # 7439-92-1)	Mercury (CAS # 7439-97-6)	Nickel (CAS # 7440-02-0)	Selenium (CAS # 7782-49-2)	Vanadium (CAS # 7440-62-2)
NRDCSRS		--	5	44,000	110,000	7,400	59,000	110,000	320	11,000	91,000	170,000	450	19	59,000	140	78	--	590	800	65	23,000	5,700	1,100
RDCSRS		--	2	3,100	7,800	510	5,300	7,800	110	1,400	6,300	12,000	31	19	16,000	16	78	--	1,600	400	23	1,600	390	78
IGWSSL		--	0.005	0.6	4	0.4	11	8	0.2	0.2	4	12	6	19	1,300	0.5	1	--	59	59	0.1	31	7	--
Z01	7/12/2000	13.0-13.5	ND	ND	0.0042	NR	NR	0.0025	NS	NS	ND	0.00433	<6.8	16.4	108	0.62	<0.57	59.2	8.4	76.1	0.29	180	<11	47.4
	7/11/2001		ND	ND	ND	NR	NR	ND	NS	NS	ND	ND	<1.0	14.4	121	<0.51	0.85	97.7	10.3	101	0.19	366	2.4	58.7
	7/18/2002		ND	ND	0.0045	NR	NR	0.011	NS	NS	0.0073	0.0266	<1.5	26.4	139	<0.75	<0.75	93.2	12.6	82.9	0.93	765	6.5	74.6
	7/23/2003		ND	ND	ND	NR	NR	ND	NS	NS	ND	ND	<1.4	23.9	143	<0.71	0.82	61.5	8.7	91.1	0.63	650	5.9	67.9
	12/3/2004		ND	ND	ND	NR	NR	0.0074	NS	NS	0.00091	0.0115	<1.5	24.2	174	<0.76	1.3	62.6	9.4	101	1.3	817	9	73
	8/10/2005		0.0037	ND	0.0052	NR	NR	0.0809	NS	NS	0.0115	0.378	<1.2	22.8	127	<0.61	<0.61	66.8	9.2	89.2	1.2	675	11	NS
	8/30/2006		0.0012	0.009	0.0017	NR	NR	0.00081	0.0014	ND	0.00082	0.0018	<2.2	7.4	48.3	<0.56	<0.56	68.1	5.8	46.4	0.21	112	<2.2	NS
	12/18/2007		ND	ND	ND	NR	NR	0.0012	0.0023	ND	0.0042	0.0022	<2.8	28.3	172	<0.69	1.2	78.1	12	122	1.6	999	10.9	NS
	11/26/2008		0.0021	ND	ND	NR	NR	0.001	ND	ND	0.0069	0.0024	<3.1	25	145	<0.76	<0.76	68.8	11.1	96.8	1.2	781	10.7	NS
	7/29/2009		ND	ND	ND	NR	NR	ND	ND	ND	ND	ND	<3.0	53	263	<0.75	1.1	60.8	10.9	160	2.3	1,200	17.5	NS
	7/22/2011		0.0043	ND	ND	ND	NR	ND	ND	ND	0.0057	ND	<2.1	9.8	35.1	0.45	<0.53	24	<5.3	7.4	0.035	12	<2.1	27.6
	7/26/2012		0.0011J	ND	ND	ND	ND	0.00078 J	ND	ND	0.00081 J	0.0018 J	<2.9	17.5	NA	0.60	0.96	75.7	NA	96.0	0.44	1,140	5.6	NA
TZ	7/12/2000	11.0-12.5	ND	ND	3.2	NR	NR	ND	NS	NS	ND	ND	<6.6	15	80.3	0.68	<0.55	23.7	6.2	67.6	0.15	79	<11	48.1
	7/11/2001		0.156	ND	ND	NR	NR	0.643	NS	NS	0.308	1.970	2.8	17	155	<0.53	1.3	115	15.8	182	0.16	295	2.5	53.8
	7/18/2002		ND	ND	ND	NR	NR	ND	NS	NS	ND	0.0028	<1.1	11.9	61.8	<0.57	<0.57	36.6	6.2	42.3	0.29	198	1.7	33
	7/23/2003		0.0069	ND	0.0088	NR	NR	0.0445	NS	NS	0.0161	0.17	<2.0	44.6	236	<0.99	1.6	81.2	12.5	142	2	1,190	13.7	110
	12/3/2004		ND	ND	0.00094	NR	NR	0.00062	NS	NS	0.00053	0.0021	<1.1	7	34.2	<0.53	<0.53	21.7	5.5	19.7	0.15	35	<1.1	21
	8/10/2005		0.005	0.0782	0.0037	NR	NR	0.0432	NS	NS	0.0166	0.179	<1.2	18.5	101	<0.60	<0.60	45.1	7.5	66.1	1.3	568	9.9	NS
	8/30/2006		ND	ND	ND	NR	NR	ND	ND	ND	ND	ND	<2.1	<2.1	<21	<0.53	<0.53	5.1	<5.3	8.1	<0.033	<4.2	<2.1	NS
	12/18/2007		ND	ND	ND	NR	NR	0.0021	0.0025	ND	0.0077	0.0051	<2.9	31	195	<0.73	1.4	84.1	12.4	142	1.6	1,210	13.3	NS
	11/26/2008		0.0033	ND	ND	NR	NR	ND	ND	ND	0.0068	ND	<2.8	27.2	153	<0.70	<0.70	75.3	9.1	102	1	820	10	NS
	7/29/2009		ND	0.0594	ND	NR	NR	ND	ND	ND	ND	ND	<3.4	48	235	<0.84	1.1	70.8	12.3	141	2.5	1,280	18.2	NS
	7/22/2011		ND	ND	ND	ND	NR	ND	ND	ND	ND	ND	<2.2	7.1	26.9	0.39	<0.54	16.1	<5.4	12	0.063	12	<2.2	23.8
	7/26/2012		0.00051 J	ND	ND	ND	ND	ND	ND	ND	0.00035 J	0.00031 J	<3.1	17.1	NA	0.94	2.3	88.5	NA	116	0.28	236	<3.1	NA
UZ	7/12/2000	10.0-11.0	ND	ND	ND	NR	NR	ND	NS	NS	ND	ND	<6.6	6.6	<22	<0.55	<0.55	28.8	<5.5	16.8	0.088	26	<11	15.9
	7/11/2001		ND	ND	ND	NR	NR	ND	NS	NS	ND	ND	<1.2	7.6	63.4	<0.59	<0.59	26.7	<5.9	35.5	0.066	59	1.2	28.9
	7/18/2002		ND	ND	ND	NR	NR	ND	NS	NS	ND	ND	<1.1	3.1	<22	<0.55	<0.55	8.1	<5.5	9.6	0.069	8	<1.1	11.2
	7/23/2003		0.0031	ND	ND	NR	NR	0.0107	NS	NS	0.0043	0.0333	<1.6	21.1	448	<0.79	<0.79	56.5	11.9	80.8	0.89	593	5.7	61.3
	12/3/2004		ND	ND	0.0014	NR	NR	ND	NS	NS	0.00056	0.002	<1.1	20.1	38.4	0.57	<0.54	23.6	<5.4	36.5	0.15	63	<1.1	30.8
	8/10/2005		ND	ND	ND	NR	NR	ND	NS	NS	ND	ND	<1.0	7.2	26.1	<0.52	<0.52	13.6	<5.2	14.1	<0.033	11	2.5	NS
	8/30/2006		ND	ND	ND	NR	NR	ND	ND	ND	ND	ND	<2.2	<2.2	<22	<0.55	<0.55	5.8	<5.5	<2.2	<0.033	<4.4	<2.2	NS
	12/18/2007		ND	ND	ND	NR	NR	0.0028	0.0027	ND	0.0087	0.007	<2.9	34.8	223	0.97	1.4	90.2	17.1	202	1.4	1,200	13.7	NS
	11/26/2008		0.0034	ND	ND	NR	NR	0.0043	0.00055	ND	0.0096	0.0207	<2.6	25.3	148	<0.64	0.67	65.2	9.2	99.9	0.74	789	10.1	NS
	7/29/2009		ND	0.029	ND	NR	NR	ND	ND	ND	ND	ND	<6.6	41.3	196	<0.82	<1.6	87.8	14.2	167	1.8	1,190	23.4	NS
	7/22/2011		ND	0.0035	ND	ND	NR	ND	ND	ND	0.00049	ND	<2.2	7	86.1	0.36	<0.54	19.4	<5.4	8.8	0.066	13	<2.2	18.6
	7/26/2012		0.00033 J	ND	ND	ND	ND	0.00038 J	0.00089 J	ND	ND	0.00047 J	0.00096 J	5.6	19.4	NA	0.85	0.66	63.7	NA	87.9	0.23	212	<2.3

		General Chemistry						Semi-Volatile Organic																			
Sample Location	Sample Date	Nitrogen, Total Kjeldahl (CAS # 7727-37-9)	pH (su)	Specific Conductivity (unhos/cm)	HEM Oil and Grease	Solids, Percent	Benzenethiol (CAS # 108-98-5)	Acenaphthene (CAS # 83-32-9)	Acenaphthylene (CAS # 208-96-8)	Anthracene (CAS # 120-12-7)	Benzo(a)anthracene (CAS # 56-55-3)	Benzo(a)pyrene (CAS # 50-32-8)	Benzo(b)fluoranthene (CAS # 205-99-2)	Benzo(g,h,i)perylene (CAS # 191-24-2)	Benzo(k)fluoranthene (CAS # 207-08-9)	Butyl Benzyl Phthalate (CAS # 85-68-7)	Chrysene (CAS # 218-01-9)	Dibenz(a,h)anthracene (CAS # 53-70-8)	bis(2-ethylhexyl)phthalate (CAS # 117-81-7)	Fluoranthene (CAS # 206-44-0)	Fluorene (CAS # 86-73-7)	Indeno(1,2,3-cd)pyrene (CAS # 193-39-5)	6-MethylChrysene (CAS # 1705-85-7)	Naphthalene (CAS # 91-20-3)	Phenanthrene (CAS # 85-01-8)	Pyrene (CAS # 129-00-0)	Total Semi-Volatile TICs
NRDCSRS		--	--	--	--	--	--	37,000	300,000	30,000	2	0.2	2	30,000	23	14,000	230	0.2	140	24,000	24,000	2	--	17	300,000	18,000	--
RDCSRS		--	--	--	--	--	--	3,400	--	17,000	0.6	0.2	0.6	380,000	6	1,200	62	0.2	35	2,300	2,300	0.6	--	6	--	1,700	--
IGWSSL		--	--	--	--	--	--	74	--	1,500	0.5	0.2	2	--	16	150	52	0.5	790	840	110	5	--	16	--	550	--
ZOI	7/12/2000	669	7.3	3,390	17,000	88.2	NS	NR	NR	2.66	1.15	0.711	ND	NR	ND	ND	2.87	ND	1.26	1.19	NR	NR	NS	ND	22.7	5.23	NR
	7/11/2001	1,790	6.7	4,920	30,700	90.6	1.54	NR	NR	1.94	3.49	3.2	2.07	NR	0.441	ND	7.41	ND	1.25	2.32	NR	NR	2.57	ND	12.4	10.8	NR
	7/18/2002	5,920	7.74	359	17,100	66.6	0.986	NR	NR	ND	1.22	1.23	0.613	NR	ND	ND	3	0.403	0.973	0.397	NR	NR	ND	0.386	4.45	3.6	NR
	7/23/2003	5,100	6.3	5,920	7,170	70.6	NS	NR	NR	NS	NS	NS	NS	NR	NS	NS	NS	NS	NS	NS	NR	NR	NS	NS	NS	NS	NR
	12/3/2004	5,520	7.44	3,760	16,200	64.8	1.07	NR	NR	0.391	0.556	1.2	0.494	NR	ND	ND	2.45	ND	0.82	0.169	NR	NR	0.833	0.27	1.05	2.27	NR
	8/10/2005	5,090	6.34	4,600	21,700	81.6	NS	NR	NR	NS	NS	NS	NS	NR	NS	NS	NS	NS	NS	NS	NR	NR	NS	NS	NS	NS	NR
	8/30/2006	372	7.78	1,430	4,510	91.4	NS	NR	NR	NS	NS	NS	NS	NR	NS	NS	NS	NS	NS	NS	NR	NR	NS	NS	NS	NS	NR
	12/18/2007	6,670	7.2	2,290	8,210	69	NS	NR	NR	NS	NS	NS	NS	NR	NS	NS	NS	NS	NS	NS	NR	NR	NS	NS	NS	NS	NR
	11/26/2008	4,940	6.71	2,670	9,340	65.5	NS	NR	NR	NS	NS	NS	NS	NR	NS	NS	NS	NS	NS	NS	NR	NR	NS	NS	NS	NS	NR
	7/29/2009	9,220	5.42	1,090	11,500	65.4	1.56	NR	NR	0.559	ND	ND	ND	NR	ND	ND	ND	ND	0.432	ND	NR	NR	ND	0.0564	0.211	0.215	NR
	7/22/2011	277	5.36	56	<510	94.7	ND	NR	NR	ND	ND	ND	ND	NR	ND	ND	ND	ND	0.0873	ND	NR	NR	ND	ND	ND	ND	NR
	7/26/2012	3,710	6.55	1,170	11,900	68.1	NA	ND	0.0769	0.0791	0.0828	0.353	0.0160	0.350	0.0524	ND	0.475	0.0775	0.0899	0.0421	0.0208 J	0.125	NA	0.0207 J	0.0676	0.255	13.92 J (15)
TZ	7/12/2000	880	7.7	2,140	1,580	90.1	NS	NR	NR	47.6	133	89.8	154	NR	116	ND	269	ND	65.7	111	NR	NR	NS	ND	142	279	NR
	7/11/2001	3,120	7.8	1,870	44,600	88	1.16	NR	NR	3.34	7.02	5.71	3.65	NR	0.971	ND	13.4	ND	1.9	4.82	NR	NR	4.42	2.54	24.4	18	NR
	7/18/2002	1,390	7.19	373	7,410	87.2	0.388	NR	NR	1.67	1.88	1.88	1.65	NR	0.544	ND	3.15	ND	0.305	2.59	NR	NR	ND	0.373	6.88	5.05	NR
	7/23/2003	11,300	8.6	6,070	11,000	49.7	NS	NR	NR	NS	NS	NS	NS	NR	NS	NS	NS	NS	NS	NS	NR	NR	NS	NS	NS	NS	NR
	12/3/2004	319	8.79	1,140	623	91.8	0.0363	NR	NR	0.0268	0.0519	0.0616	0.077	NR	0.035	ND	0.124	ND	0.228	0.0587	NR	NR	0.0674	0.0406	0.0777	0.126	NR
	8/10/2005	2,860	8.18	2,540	8,050	85.4	NS	NR	NR	NS	NS	NS	NS	NR	NS	NS	NS	NS	NS	NS	NR	NR	NS	NS	NS	NS	NR
	8/30/2006	104	4.72	839	<570	91	NS	NR	NR	NS	NS	NS	NS	NR	NS	NS	NS	NS	NS	NS	NR	NR	NS	NS	NS	NS	NR
	12/18/2007	5,670	6.81	2,340	7,510	69.5	NS	NR	NR	NS	NS	NS	NS	NR	NS	NS	NS	NS	NS	NS	NR	NR	NS	NS	NS	NS	NR
	11/26/2008	4,580	6.58	3,330	11,500	70.8	NS	NR	NR	NS	NS	NS	NS	NR	NS	NS	NS	NS	NS	NS	NR	NR	NS	NS	NS	NS	NR
	7/29/2009	7,500	5.76	1,400	7,360	59.9	1.22	NR	NR	0.396	ND	ND	ND	NR	ND	ND	ND	ND	0.207	0.126	NR	NR	ND	0.0415	0.132	0.274	NR
	7/22/2011	87.4	6.11	1	<530	1.2	ND	NR	NR	ND	ND	ND	ND	NR	ND	ND	ND	ND	ND	ND	NR	NR	ND	ND	ND	ND	NR
	7/26/2012	1,240	7.06	2,220	5,090	66.2	NA	0.0373 J	0.0390 J	0.0575	0.168	0.195	0.116	0.112	0.0376J	ND	0.369	0.0350 J	0.0727J	0.0910	ND	0.0457	NA	ND	0.0299 J	0.307	16.57 J (23)
UZ	7/12/2000	305	7.4	1,130	1,040	90.6	NS	NR	NR	21.2	56.7	53.2	ND	NR	ND	ND	110	ND	ND	63.2	NR	NR	NS	ND	63.1	156	NR
	7/11/2001	662	6.9	1,620	3,410	84	0.165	NR	NR	0.48	0.593	0.567	0.338	NR	ND	ND	1.46	ND	0.195	0.433	NR	NR	ND	0.18	3.3	1.75	NR
	7/18/2002	117	6.93	62	629	91	ND	NR	NR	ND	ND	ND	0.04	NR	ND	ND	0.0798	ND	ND	ND	NR	NR	ND	ND	ND	0.057	NR
	7/23/2003	4,980	7.27	3,330	6,120	64.1	NS	NR	NR	NS	NS	NS	NS	NR	NS	NS	NS	NS	NS	NS	NR	NR	NS	NS	NS	NS	NR
	12/3/2004	414	8.88	1,020	1,070	90.6	0.0627	NR	NR	0.155	0.314	0.309	0.262	NR	0.167	ND	0.379	ND	0.117	0.488	NR	NR	0.199	0.0574	0.489	0.597	NR
	8/10/2005	156	8.74	603	<530	93.4	NS	NR	NR	NS	NS	NS	NS	NR	NS	NS	NS	NS	NS	NS	NR	NR	NS	NS	NS	NS	NR
	8/30/2006	38	7.93	767	<600	91.1	NS	NR	NR	NS	NS	NS	NS	NR	NS	NS	NS	NS	NS	NS	NR	NR	NS	NS	NS	NS	NR
	12/18/2007	5,070	6.62	2,500	10,500	68.1	NS	NR	NR	NS	NS	NS	NS	NR	NS	NS	NS	NS	NS	NS	NR	NR	NS	NS	NS	NS	NR
	11/26/2008	3,700	6.86	3,050	18,300	77.4	NS	NR	NR	NS	NS	NS	NS	NR	NS	NS	NS	NS	NS	NS	NR	NR	NS	NS	NS	NS	NR
	7/29/2009	7,460	5.71	1,710	9,680	59.1	1.42	NR	NR	0.398	ND	ND	ND	NR	ND	ND	ND	ND	0.22	0.125	NR	NR	ND	0.0399	0.156	0.609	NR
	7/22/2011	117	5.23	19.3	286,000	90	ND	NR	NR	ND	ND	ND	ND	NR	ND	ND	ND	ND	ND	ND	NR	NR	ND	ND	ND	ND	NR
	7/26/2012	471	7.25	2,070	3,630	88	NA	0.0654	0.0439	0.109	0.238	0.262	0.171	0.185	0.0438	ND	0.502	ND	0.0859	0.159	0.0562	0.100	NA	.0129 J	0.122	0.414	15.010 J (22)

All data reported in mg/kg unless otherwise noted
IGWSSL- Impact to Groundwater Soil Screening Level
NRDCSRS- Residential Direct Contact Soil Remediation Standard
NRDCSRS- Non Residential Direct Contact Soil Remediation Standard
Values in **bold** indicated the value is above the applicable remediation standd
(#) - Indicates number of TICs

-- Not Available/ Not Applicable
ND-Non detect
NA- Not Analyzed
NR- Not Reported
J- Estimate Value

EXHIBIT C

Deed Notice as Institutional Control and Impermeable Cap and Fence as Engineering Control

Exhibit C-1: Institutional Control

Exhibit C-1(A): Description and Estimated Size

The No. 1 Landfarm is located along the northeast boundary of the refinery property, encompassing an area approximately 81,000 square feet, and it is bounded on all sides by raised earthen dikes. The No. 1 Landfarm is a state-of-the-art system with a compacted clay liner and has been in operation since 1988. It was designed not to allow any leachate (soil-pore water) discharges into the ground water.

The Landfarm was permitted to treat four RCRA hazardous waste streams – API Separator Sludge (K-051), heat exchanger bundle cleaning sludge (K-050), leaded tank bottoms (K-052) and TEL tank bottoms (P-110).

Exhibit C-1(B): Description of Restrictions on Property

By operation of this Deed Notice, a fence has been installed around the entire area of AOC- 3 the No. 1 Landfarm, and an impermeable cap will be constructed. Additionally, a 30-year Post Closure Monitoring Program will be instituted, with monthly inspection of the fence and semi-annual groundwater monitoring of six (6) permanent monitoring wells.

Exhibit C-1(C): Objective of Restrictions

The Deed Notice serves to notify current and future site occupants of the presence of the Landfarm. The impermeable cap will reduce or eliminate the migration of constituents and function as infiltration control, erosion and runoff control, as well as wind erosion control. The fence will serve as a physical barrier to control access to the restricted area.

Exhibit C-2: Engineering Control – Fence, Impermeable Cap and Groundwater Monitoring

Exhibit C-2(A): General Description of Engineering Control

The engineering control includes an impermeable cap consisting of geosynthetic clay liner acting as a hydraulic barrier. The total area is approximately 81,000 square feet (1.86 acres), with a final thickness of 3-ft. The cap will be covered with 1.5-ft of soil as a drainage layer, and 0.5-ft of 3-inch aggregate as a physical barrier. Post-capping a 5-ft high fence will be installed surrounding the AOC and measuring approximately 1,240-feet long, with Entry Limited by a locked gate. Signs will be located on all sides of the fence, which will read "Authorization Required for Entry" or similar appropriate wording.

Monthly inspections will be undertaken for the duration of the 30-year Post Closure Monitoring Plan. The inspector will be check for signs of damage and deterioration, when necessary, corrective actions will be undertaken to remain the integrity of the fence. A logbook will be kept, detailing the dates and details of inspections, along with any corrective actions taken. Inspections will be conducted by an individual familiar with post-closure care requirements.

Groundwater monitoring will be undertaken at six (6) monitoring well locations (L1-1, L1-2, L1-3, L1-4, BG-2 and BG-2). Groundwater sampling will be conducted Semi-Annually, and reported annually for 30 years, if no monitored compounds are detected exceeding NJDEP Class IIa Groundwater Criteria during the initial 2-years of sampling, the program will be adjusted to annual sampling, with annual reporting. Analysis will completed for Total Compound List (TCL) Volatiles with a library search for Tentatively Identified Compounds (TICs), TCL Semi-Volatiles with a library search for TICs, Ammonia, pH, Antimony, Arsenic and Lead.

Exhibit C-2(B): Objective and Function of Engineering Controls

The impermeable cap will reduce or eliminate the migration of constituents and function as infiltration control, erosion and runoff control, as well as wind erosion control. The fence will serve as a physical barrier to control access to the restricted area.

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